

1. In a network that includes a first computer system having a first data store and second computer system having a second data store, a method for synchronizing the first and second data stores in a flexible manner considering the circumstances that exist at the time of synchronization, the method comprising the following:

an act of the first computer system determining that a data item is to be synchronized;

an act of the first computer system identifying which of the plurality of synchronization mechanisms are available to use for synchronization;

an act of the first computer system consulting a set of flexible selection rules to select one of the available synchronization mechanisms; and

an act of the first computer system using the selected synchronization mechanism to synchronize the data item with the second computer.

2. A method in accordance with Claim 1, wherein the first computer system is a synchronization server, and the second computer system is a mobile device.

3. A method in accordance with Claim 1, wherein the first computer system is a mobile device, and the second computer system is a synchronization server.

4. A method in accordance with Claim 3, wherein the act of the first computer system determining that a data item is to be synchronized comprises the following:

an act of the mobile device determining on its own that the data item is to be synchronized.

5. A method in accordance with Claim 3, wherein the act of the first computer system determining that a data item is to be synchronized comprises the following:

an act of the mobile device receiving a user-issued instruction to synchronize the data item.

6. A method in accordance with Claim 3, wherein the act of the first computer system determining that a data item is to be synchronized comprises the following:

an act of the mobile device receiving a signal from the synchronization server that represents to the mobile device that the data item is to be synchronized.

7. A method in accordance with Claim 3, wherein the second data store is incorporated within a common sphere of trust.

8. A method in accordance with Claim 7, wherein the second data store is incorporated within a corporate network.

9. A method in accordance with Claim 3, wherein the second data store is incorporated within the Internet.

10. A method in accordance with Claim 3, wherein the mobile device comprises a mobile telephone.

11. A method in accordance with Claim 3, wherein the mobile device comprises a personal digital assistant.

12. A method in accordance with Claim 3, wherein the mobile device comprises a laptop computer.

13. A method in accordance with Claim 3, wherein the mobile device comprises a tablet personal computer.

14. A method in accordance with Claim 1, wherein the plurality of synchronization mechanisms comprises at least one wireless synchronization mechanism.

15. A method in accordance with Claim 14, wherein the at least one wireless synchronization mechanism uses a GPRS network.

16. A method in accordance with Claim 14, wherein the at least one wireless synchronization mechanism uses an 802.11a network.

17. A method in accordance with Claim 14, wherein the at least one wireless synchronization mechanism uses an 802.11b network.

18. A method in accordance with Claim 14, wherein the at least one wireless synchronization mechanism uses Bluetooth network.

19. A method in accordance with Claim 14, wherein the at least one wireless synchronization mechanism uses a cellular network.



20. A method in accordance with Claim 1, wherein the plurality of synchronization mechanisms comprises an analog dialup synchronization mechanism.

21. A method in accordance with Claim 1, wherein the plurality of synchronization mechanisms comprises a Virtual Private Network (VPN).

22. A method in accordance with Claim 1, further comprising the following:  
an act of receiving instructions to change the set of flexible selection rules; and  
an act of changing the set of selection rules in response to the instruction.

23. A method in accordance with Claim 22, wherein the act of receiving instructions to change the set of flexible selection rules comprises the following:

an act of receiving instructions to change the set of flexible selection rules from a user of the first computer system.

24. A method in accordance with Claim 22, wherein the act of receiving instructions to change the set of flexible selection rules comprises the following:

an act of receiving instructions to change the set of flexible selection rules from an agent of the second computer system.

25. A method in accordance with Claim 24, wherein the act of receiving instructions to change the set of flexible selection rules from an agent of the second computer system comprises the following:

an act of receiving instructions to change the set of flexible selection rules from a network administrator of a network that includes the second computer system.

26. A method in accordance with Claim 25, further comprising the following:  
an act of receiving instructions to change the set of flexible selection rules from a user.

27. A method in accordance with Claim 26, wherein the act of changing the set of selection rules in response to the instruction, comprises the following:

an act of fulfilling the instructions received from the network administrator of the second computer system to the extent that there is a conflict between the instructions received from the network administrator of the second computer system and the instructions received from the user of the first computer system.

28. A method in accordance with Claim 1, wherein the act of the first computer system consulting a set of flexible selection rules comprises the following:

an act of the first computer system selecting one of the available synchronization mechanisms without synchronous intervention from a user of the first computer system.

29. A method in accordance with Claim 1, wherein the act of determining that a data item is to be synchronized comprises the following:

an act of the first computer system receiving a notification from the second computer system that a data item is available to synchronize;

an act of the first computer system notifying the user of the availability of the data item; and

an act of receiving a user-instruction to synchronize the data item.

30. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the time of day.

31. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the day of the week.

32. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the value of the data.

33. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the economic cost of using a network associated with the synchronization mechanism.

34. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the security of a network associated with the synchronization mechanism.

35. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the security of the first computer system.

36. A method in accordance with Claim 35, wherein the act of selecting the synchronization mechanism at least based on the security of the first computer system comprises the following:

an act of selecting the selecting the synchronization mechanism at least based on the security features inherent in devices of the same type as the first computer system

37. A method in accordance with Claim 35, wherein the act of selecting the synchronization mechanism at least based on the security of the first computer system comprises the following:

an act of selecting the selecting the synchronization mechanism at least based on current security settings of the first computer system

38. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of selecting the synchronization mechanism at least based on the location of the user of the first computer system.

39. A method in accordance with Claim 1, wherein the act of consulting a set of flexible selection rules to select one of the available synchronization mechanisms comprises the following:

an act of determining that there are no current synchronization mechanisms that are selectable based on the flexible set of rules;

an act of reevaluating the flexible selection rules at a later time; and

an act of repeating the reevaluation until at least one of the available synchronization mechanisms is selectable based on the flexible selection rules.

40. A method in accordance with Claim 1, further comprising the following:

after using the selected synchronization mechanism to synchronize the data item, an act of determining that the conditions for synchronization are no longer met in light of the flexible selection rules; and

an act of automatically reversing the synchronization if it has been determined that the conditions for synchronization are no longer met.



41. A method in accordance with Claim 1, wherein the act of the first computer system determining that a data item is to be synchronized comprises the following:

an act of the first computer system determining whether to synchronize a data item by consulting a set of flexible selection rules; and

an act of the first computer system synchronize the data item with the second computer if the first computer system determines that the data item is to be synchronized.

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42. A computer program product for use in a network that includes a first computer system having a first data store and second computer system having a second data store, the computer program product for implementing a method for synchronizing the first and second data stores in a flexible manner considering the circumstances that exist at the time of synchronization, the computer program product comprising one or more computer-readable media having stored thereon the following:

computer-executable instructions for determining that a data item is to be synchronized;

computer-executable instructions for identifying which of the plurality of synchronization mechanisms are available to use for synchronization;

computer-executable instructions for consulting a set of flexible selection rules to select one of the available synchronization mechanisms; and

computer-executable instructions for using the selected synchronization mechanism to synchronize the data item with the second computer.

43. A computer program product in accordance with Claim 42, wherein the one or more computer-readable media are physical storage media.

44. In a network that includes a first computer system having a first data store and second computer system having a second data store, a method for synchronizing the first and second data stores in a flexible manner considering the circumstances that exist at the time of synchronization, the method comprising the following:

an act of the first computer system determining that a data item is to be synchronized; and

a step for flexibly using an appropriate synchronization mechanism considering the then-existing circumstances.

45. A method in accordance with Claim 44, wherein the step for flexibly using an appropriate synchronization considering the then-existing circumstances comprises the following:

an act of the first computer system identifying which of the plurality of synchronization mechanisms are available to use for synchronization;

an act of the first computer system consulting a set of flexible selection rules to select one of the available synchronization mechanisms; and

an act of the first computer system using the selected synchronization mechanism to synchronize the data item with the second computer.

46. In a network that includes a first computer system having a first data store and second computer system having a second data store, a method for synchronizing the first and second data stores in a flexible manner considering the circumstances that exist at the time of synchronization, the method comprising the following:

an act of the first computer system determining whether to synchronize a data item by consulting a set of flexible selection rules; and

an act of the first computer system synchronize the data item with the second computer if the first computer system determines that the data item is to be synchronized.

47. A method in accordance with Claim 46, wherein the first computer system is a synchronization server, and the second computer system is a mobile device.

48. A method in accordance with Claim 46, wherein the first computer system is a mobile device, and the second computer system is a synchronization server.

49. A method in accordance with Claim 46, further comprising the following:

an act of receiving instructions to change the set of flexible selection rules; and

an act of changing the set of flexible selection rules in response to the instruction.

50. A method in accordance with Claim 49, wherein the act of receiving instructions to change the set of flexible selection rules comprises the following:

an act of receiving instructions to change the set of flexible selection rules from a user of the first computer system.

51. A method in accordance with Claim 49, wherein the act of receiving instructions to change the set of flexible selection rules comprises the following:

an act of receiving instructions to change the set of flexible selection rules from an agent of the second computer system.

52. A method in accordance with Claim 51, wherein the act of receiving instructions to change the set of flexible selection rules from an agent of the second computer system comprises the following:

an act of receiving instructions to change the set of flexible selection rules from a network administrator of trusted network that includes the second computer system.

53. A method in accordance with Claim 52, further comprising the following:

an act of receiving instructions to change the set of flexible selection rules from a user.

54. A method in accordance with Claim 53, wherein the act of changing the set of flexible selection rules in response to the instruction, comprises the following:

an act of fulfilling the instructions received from the network administrator of the second computer system to the extent that there is a conflict between the instructions received from the network administrator of the second computer system and the instructions received from the user of the first computer system.

55. A method in accordance with Claim 46, further comprising the following:

after using the selected synchronization mechanism to synchronize the data item, an act of determining that the conditions for synchronization are no longer met in light of the flexible selection rules; and

an act of automatically reversing the synchronization if it has been determined that the conditions for synchronization are no longer met.

56. A method in accordance with Claim 46, wherein the act of the first computer system synchronize the data item with the second computer comprises the following:

an act of the first computer system identifying which of a plurality of synchronization mechanisms are available to use for synchronization;

an act of the first computer system consulting a set of flexible selection rules to select one of the available synchronization mechanisms; and

an act of the first computer system using the selected synchronization mechanism to synchronize the data item with the second computer.

57. A computer program product for use in a network that includes a first computer system having a first data store and second computer system having a second data store, the computer program product for implementing a method for synchronizing the first and second data stores in a flexible manner considering the circumstances that exist at the time of synchronization, the computer program product comprising one or more computer-readable media having stored thereon the following:

computer-executable instructions for determining whether to synchronize a data item by consulting a set of flexible selection rules; and

computer-executable instructions for synchronize the data item with the second computer if the first computer system determines that the data item is to be synchronized.

58. A computer program product in accordance with Claim 57, wherein the one or more computer-readable media comprise physical storage media.

59. A network system comprising the following:

a synchronization server comprising a data store, a networking module, and a processing module configured to access the data store as well as communicate over a network using the networking module;

a mobile device having a data store, a networking module, and a processing modules configured to access the data store of the mobile device as well as communicate with the synchronization server over the network using the networking module of the mobile device, the processing device of the mobile device configured to perform the following:

determine that a data item is to be synchronized;

identify which of the plurality of synchronization mechanisms are available to use for synchronization;

consult a set of flexible selection rules to select one of the available synchronization mechanisms; and

use the selected synchronization mechanism to synchronize the data item.



60. A network system comprising the following:

a synchronization server comprising a data store, a networking module, and a processing module configured to access the data store as well as communicate over a network using the networking module;

a mobile device having a data store, a networking module, and a processing modules configured to access the data store of the mobile device as well as communicate with the synchronization server over the network using the networking module of the mobile device, the processing device of the synchronization server configured to perform the following:

determine that a data item is to be synchronized;

identify which of the plurality of synchronization mechanisms are available to use for synchronization;

consult a set of flexible selection rules to select one of the available synchronization mechanisms; and

use the selected synchronization mechanism to synchronize the data item.